

## CLAIMS

1. A high frequency application apparatus comprising a high frequency generator (1), a probe arrangement (3) which is connected to the high frequency generator (1) and which includes at least two electrodes (8, 9), and at least two lines (11; 110, 111) which connect the electrodes (8, 9) to the high frequency generator (1),

characterized in that

the lines (11; 110, 111) are combined together in a common cable (5) and extend in mutually parallel relationship at least over a part of the length of the cable (5) at a defined spacing which is between 1 mm and 25 mm.

2. A high frequency application apparatus set forth in claim 1 characterized by an air cushion which within the part of the length of the cable (5) in which the lines (11; 110, 111) extend parallel is arranged between the lines (11; 110, 111) within the cable (5).

3. A high frequency application apparatus as set forth in claim 1 or claim 2 characterized in that the lines (11; 110, 111) extend separately at the end of the cable (5) towards the generator.

4. A high frequency application apparatus as set forth in claim 1 or claim 2 characterized in that a line (11) includes a plurality of wires (12).

5. A high frequency application apparatus as set forth in one of claims 1 through 3 characterized in that the lines (11) and/or the wires (12) are twisted together.

6. A high frequency application apparatus as set forth in one of claims 1 through 4 characterized in that the lines (110, 111) extend in mutually coaxial relationship.

7. A high frequency application apparatus as set forth in one of claims 1 through 5 characterized in that the probe arrangement (3) includes an electrode needle (7).

8. A high frequency application apparatus as set forth in claim 6 characterized in that the electrode needle (7) includes at least two active electrodes (8).

9. A high frequency application apparatus as set forth in one of claims 1 through 6 characterized in that the probe arrangement (3) includes an electrode needle (7) and a neutral electrode (9) to be applied externally to the body.

10. A high frequency application apparatus as set forth in claim 9 characterized in that the electrode needle (7) includes at least one active electrode (8).

11. A high frequency application apparatus as set forth in one of the preceding claims characterized in that a ferromagnetic ring is mounted on the cable (5).

12. A high frequency application apparatus as set forth in one of the preceding claims characterized in that the cable (5) is provided with an electrically conductive shield or casing.

13. A high frequency application apparatus as set forth in claim 12 characterized in that the shield or the casing includes a connection (103) by way of which it is to be electrically connected to a shielding means (101) of a nuclear magnetic resonance tomograph (100).

14. A high frequency application apparatus comprising a high frequency generator (1), a probe arrangement (3) which is connected to the high frequency generator (1) and which includes at least two electrodes (8, 9), and at least two lines (11; 110, 111) which connect the electrodes (8, 9) to the high frequency generator (1),

characterized in that

the lines (11; 110, 111) have a portion (105) towards the generator and a portion (107) towards the probe, between which is a switching device (200) for separating and connecting the generator-end portion and the probe-end portion.

15. A high frequency application apparatus as set forth in one of claims 1 through 13 and claim 14.

16. A high frequency application apparatus as set forth in claim 14 or claim 15 characterized in that the switching device (200) includes an electrical switch (204).

17. A high frequency application apparatus as set forth in claim 16 characterized in that the electrical switch (204) is a reed relay.

18. A high frequency application apparatus as set forth in one of claims 14 through 17 characterized in that the switching device (200) includes a mechanical switch.

19. A high frequency application apparatus as set forth in one of claims 14 through 18 characterized in that the switching device (200) includes a signal line (202) and an actuating switch (206) which are of such an arrangement and configuration that separation and connection can take place in the room in which the high frequency generator (1) is disposed.

20. A high frequency application apparatus as set forth in one of claims 14 through 19 characterized in that the switching device (200) includes an interface for the connection of a control line (202) to a nuclear magnetic resonance tomograph (100).

21. A high frequency application apparatus as set forth in one of the preceding claims characterized in that the probe arrangement (3) and the cable (5) are adapted to be re-sterilizable.